FOUR I.T. TRENDS - Spring 2025





The list below summarizes IT trends mentioned by the National IT Innovation Center's BILT (Business and Industry Leadership Team) at the March 2025 job skills prioritization meeting on A.I. and the April 2025 cross-disciplinary trends meeting. The purpose of this summary is to keep faculty – and their students – informed on the ever-evolving IT landscape.



Foundational knowledge remains critical. One employer emphasized the rapid pace of innovation and expressed concern college bureaucracies can make it difficult for education to keep up with industry changes. He encouraged educators to find ways to move faster. This led another employer to suggest that "innovation" is sometimes a misnomer—in his view, it's more about implementation than technology. New hires, he said, need a stronger grasp of foundational IT principles and the underlying technologies. He cited several examples of coworkers and clients lacking a basic understanding of key IT concepts and urged schools to continue emphasizing those essential building blocks. Possessing a breadth of skills can sometimes be more appealing than depth. Learn more: https://www.forbes.com/councils/forbestechcouncil/2025/02/10/19-in-demand-tech-skills-everyone-can-even-should-learn/



Al programs should focus on the basics. Employers agreed most students don't yet need to learn highly specialized technical AI skills. Currently, AI is a broad field that includes generative AI, machine learning, and modeling, and many of the advanced skills employers reviewed were considered too complex or likely to become obsolete within a few years. Instead, they recommended focusing on core principles and basic understanding, with more advanced content introduced selectively. Given the pace of change in AI, employers emphasized that students who develop adaptability and self-learning habits will be best positioned to succeed in the AI landscape. Learn more: https://www.ibm.com/think/insights/ai-skills-you-need-for-2025



Generative AI has become a critical skill for new hires. Employers agreed that the workforce has shifted. Whereas jobs once required knowing how to build large language models (LLMs), the current focus is on using existing ones effectively. The key question now is: How do you make an existing LLM perform like a "Swiss Army knife" that can solve a range of business problems? Students need to know how to use these tools strategically, not build them.

Learn more: https://www.netguru.com/blog/generative-ai-skills



Al still remains a nascent industry. One employer noted that many organizations have not yet developed formal Al policies. In some cases, companies haven't started incorporating responsible Al use into new-hire onboarding. This includes training employees on how to "test the truthfulness" of Al responses. Students need experience grounding LLMs with factual information and verifying their outputs. Another sign that the field is still evolving is the emergence of agentic Al systems—autonomous agents capable of taking actions on behalf of users. Students should be made aware of this growing trend.

Learn more: https://www.salesforce.com/agentforce/what-is-agentic-ai/

For a deeper dive into these topics and others, visit NITIC's BILT page, which can be accessed for free here: www.nitic.org/industry/national-bilt/bilt-overview.